

*An Account of an Experiment of the Injection of Mercury into the Blood, and its ill Effects on the Lungs; as it was communicated to the Royal Society by their late worthy Member A. Moulin, M. D.*

I Have promised last Meeting to give my Reasons this day why I conceive Mercury to be an Enemy to the Lungs: I shall only give an account of an Experiment I made on a Dog at Mr. Boyle's last Autumn, which I take to make out what I then promis'd. I injected into the jugular Vein about an ounce and half of crude Mercury, and observ'd the Dog soon after to have a dry short Cough, which by pretty intervals seiz'd him. I sew'd up the Wound, and sent away the Dog to be look'd after, observing no other effect of the Quick-silver at that time. But about two days after I saw him, and found him troubled with a great difficulty of breathing, making a noise like that of a broken-winded Horse; there was no Tumor about the root of his Tongue, neither was there any Swelling found in the Maxillary or Parotide Glandules, though I diligently sought for it: neither was he observ'd to drivle, tho' I order'd him warm Broth in expectation of a Salivation. The fourth day after the injection of the Mercury he died, being for the two days before so troubled with an *Orthopnea*, that he could sleep only when he leaned his Head against something. I open'd him, and found about him a pint of bloody *Serum* extravasated in the *Thorax*. I found also the outside of the Lungs in most places blister'd, for what I at first took to be some preternatural dilatations of the *Vesiculæ* of the *Bronchiæ*, were only Blisters or a separation of the common Integuments of the Lungs from their substance. Some of these were larger than a Rouncival-Pea, others were smaller, but most of them contain'd mercurial globules, to be seen even without opening in several of them, thro'

thro' the outward Skin ;. opening discovered it in most of those that I had the curiosity to examine. Several of these I found broken, and upon a little pressure observ'd the Mercury to run out, and with it a little *Sanies* ; but upon a pretty strong pressure, I observed that a great quantity of that *Sanies* issued out.

When I opened the right Ventricle of the Heart, I found some Particles of the Quick-Silver in the very midst of coagulated Blood lodged there, and in that also contained in the *Arteria pulmonalis*. I observed moreover blood coagulated after a very different manner ( which I want words to express ) from what I have seen at any other time, notwithstanding the various Methods I had us'd to coagulate it, and this in the *Interstices* between the *Columnæ* of the aforesaid Ventricle ; and in this a greater quantity of Quick-silver than any where else in the Dog. This *Coagulum* was in the *Vertex* of the Ventricle, adhering pretty closely to the *Columnæ* and *Parietes*.

Opening the left Ventricle, I found a very tenacious Blood coagulated and sticking firmly to the great Valve, including the Tendons of it, and a little resembling a *Polypus*. In this Ventricle I search'd diligently for Mercury, but found none ; whence it may appear, that the Mercury pass'd no farther than the extremities of the *Arteria pulmonalis* : This occasion'd the aforesaid Blisters, and forced its way through the common Coat of the Lungs, partly by its weight, and partly by the propulsion of fresh Blood to the same extremities which by the Mercury were stop'd in its motion, and consequently forced its passage through that which most readily gave way, namely, the common Coat of the Lungs.

I opened the *aspera Arteria* down to the very *Bronchia*, but could find no Mercury in it, though I search'd diligently for it. Each of the subdivisions as well as divisions of the *Bronchia* was fill'd with a *Sanies*, which

when I washed away, I found Globules of Mercury in many places under the *Bronchiæ*, and upon Examination they proved to be in the *Arteria pulmonalis*. I have press'd these Globules backwards and forwards, and made some of them get out at the holes made in the *Vesiculæ* above describ'd. I took some pains to find where the *Sanies* was received into the *Bronchiæ*, but could not satisfy my self. From hence may appear the danger of using Mercury in humane Bodies, so as that it may get into the Mass of Blood, especially into the Lungs; they wanting that brisk strong motion which the Muscles have in other parts, which are able to force it along with the Blood, in order to the raising a Salivation. Their lax spongy Texture makes them extremely unfit for clearing themselves of so troublesome a Guest as Mercury is. That it has this Effect on humane Lungs, is plain from what we daily see in persons that have been often-flux'd, who are after observ'd to dye of Consumptions that will not give way to Medicine.

*Medicina Hydrostatica, or Hydrostaticks applied to the Materia Medica, shewing how by the Weight that divers Bodies used in Physick have in Water, one may discover whether they be Genuine or Adulterate. By the Honourable ROBERT BOYLE, Fellow of the Royal Society, London, 8vo 1690. Printed for Sam. Smith.*

THE Honourable Author designs in this Treatise to shew, that by weighing Bodies in Water, comparing their weight in Air, and from thence deducing the proportion of weight to Water, the Specific Gravity of Bodies may be more exactly determined; counterfeits distinguish'd from Genuine, and the mixture of mineral Particles in Stone discovered. *Archimedes* first observed, That a Body heavier than Water, weighs less in Water